

Annual Report

# THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Covering fiscal year October 1. 1956 - September 30. 1957



### ASME - WHAT IT IS AND DOES

The American Society of Mechanical Engineers, founded in 1880, is an educational association of over 44,000 members and 10,000 students dedicated to the advancement of the art and science of mechanical engineering and related sciences.

In carrying out this purpose, ASME

- Organizes and administers programs of research to advance the frontiers of engineering knowledge.
- 2. Through meetings of members and students, at national and local levels, reveals new advances and presents reviews of current practice for discussion.
- Organizes and supports committees to codify and standardize established practice.
- 4. Improves the formal engineering education process and the subsequent growth of the engineer (cooperating with the Engineers' Council for Professional Development).
- 5. Discharges its professional responsibility by making engineering skills and experience available in the public interest (cooperating with the Engineers Joint Council).
- Cooperates actively with other branches of engineering and science both in this country and abroad.

- 7. Scrutinizes candidates for admission so that those admitted have the high professional qualifications necessary to carry on the work of ASME.
- 8. Disseminates the results of its work through its four periodicals and, annually, over 800 technical papers and other publications.

These activities are carried out by thousands of members, organized in some 1200 boards and committees under the administration of the Council, all supported by the staff of the Secretary. Serving the many specialties in mechanical engineering are twenty-three Professional Divisions which organize meetings on various topics and stimulate projects of original research. As needs arise, new Divisions are formed, the most recent being Gas Turbine Power, Lubrication, Nuclear Engineering, Petroleum and Safety. Throughout the country, the members are organized in 86 Sections and the student members in 142 Student Sections, grouped in eight Regions, each with a Vice President as leader. These regional organizations serve to determine members' needs in technical and administrative matters.

The Society spends for member services over \$2,000,000 per year and has assets of \$3,284,285.

# A significant achievement

### UNITED ENGINEERING CENTER SITE CHOSEN

One of the year's most significant developments was the announcement of a site for a new United Engineering Center, to house ASME and many of its sister societies. This multi-million dollar structure will be erected in midtown New York, adjacent to the headquarters of the United Nations. It is scheduled for completion in 1960.

Insert at lower right is view of present Engineering Societies Building at 29 West 39th Street, New York.





### A MESSAGE FROM



November 12, 1957

Fellow Members of ASME:

In the following you will find a condensed but comprehensive report on all phases of your Society's activities during the past year. I hope you will read the report attentively. It is your Society, spending your money for what the Council and the regional and local officers believe to be your needs, technological and professional. Therefore, I hope you will consider carefully what your Council has done during the past year, as described in this report, and offer constructive suggestions to the Executive Committee of your Section, the Executive Committee of the Professional Divisions in which you are registered, the Regional Vice President, the Secretary or to the Council, depending on the nature of your observations and suggestions.

#### MEMBERSHIP

You will find the total membership, exclusive of students, increased from 41,636 to 44,122 during the year. That is a healthy growth and reflects great credit on the Faculty Advisers and on the Membership Development Committees at local, regional and national levels. It is a cause of deep concern, however, that because of 234 deaths, 766 resignations, and 1,516 delinquencies in dues, the election of 4,606 new members and the reinstatement of 396 members produced a net gain of only 2,486. Obviously the Society has failed to meet the expectations of a large number, in some manner or another, and the causes of resignation and delinquency must be studied intensively. Let us get every qualified mechanical engineer into ASME, and let us make him not only a satisfied member, but an enthusiastic one, proud of his affiliation.

#### ENGINEERING CENTER

You will be glad to learn of the progress being made on the new Engineering Center. A splendid site, facing United Nations Plaza, has been purchased. A fund-raising committee has been organized by the Founder Societies. Later each member will be asked for a contribution for construction of the building which we hope to occupy in 1960.

#### **TECHNOLOGY**

The statistics on number of meetings held, their attendance, the number of papers presented and pages published, our activities in research and in preparation of Codes and Standards are solid evidence of the technological health of the Society and its service to the membership and to the national economy. The growing emphasis on national Professional Division Conferences, and the multiplication of joint meetings, both national and local, are significant developments. If you have not attended one or more of these conferences, you have missed a real opportunity for intellectual stimulus and for friendly association with the leaders in your special fields.

#### **FINANCE**

I particularly commend the financial reports to your scrutiny. I repeat, it is your money that is

## THE PRESIDENT

being spent by direction of the Council and under the supervision of our committees and the Staff. You will find, I believe, that the Society's affairs have been efficiently and economically administered

under a sound fiscal policy.

I am happy to report that the usual policy of the Society in adopting a conservative budget and planning its expenditures accordingly made it possible for the Council to increase its expenditures for services to the membership during the year without increasing dues. The gratifying increase in income from publications has so far offset the effects of inflation. Many members of the Council, however, remember the events of the early thirties and the effect of shrinking revenues resulting from the Great Depression. We are not, therefore, assuming a continuous rise in income and the 1957–58 budget, as approved, is based on a conservative plan of expenditure.

#### UNITY

In my meetings with the members and executive committees, a tremendous interest has been evidenced in achieving unity of the engineering profession. In addition to our active support of Engineers' Council for Professional Development and Engineers Joint Council in activities summarized in this report, and in addition to the many joint activities with other societies, also recorded, there has been widespread demonstration of unity at the local level, through cooperation of sections of the Founder Societies with other groups, including chapters of the National Society of Professional Engineers. A meeting of eight presidents (ECPD, NSPE, EJC and the Founder Societies) initiated a movement which has far-reaching possibilities. In June, AIEE adopted a constructive policy aiming to reduce conflict, confusion and duplication of effort among the three principal agencies for unified action. (See Mechanical Engineering, July, 1957.) While only a step toward effective unity, the policy is, I believe, a highly realistic one under existing circumstances, and I hope that by the time this letter reaches you, Council of ASME will have adopted a parallel program. NSPE is re-examining its previous negative action and may apply for membership in EJC. Such an action would vastly improve the "climate of negotiation" and facilitate implementation of the AIEE program. ECPD, NSPE and EIC are cooperating in many activities. and, slight as the visible evidence may be, I can

report with confidence that important progress toward effective unity has been made during the present year. I can appreciate the impatience of interested members, but I urge each member to accept every individual opportunity to promote unity. All of us belong to ECPD and EJC. Many of us belong to NSPE, and collectively we can exercise a constructive influence for effective unity. Before you ask my successor at future meetings what he is doing about unity, examine your own conscience, and be sure you can tell him what you are doing about unity.

#### **APPRECIATION**

I take this opportunity to thank all our members for their loyal support of the Society. I have experienced the warm hospitality of the membership in all eight Regions of the Society, and have had a firsthand opportunity to observe the hard work cheerfully performed by our thousands of committee members in the Sections, Professional Divisions, and on our standing committees. I have been inspired by the devoted service of Faculty Advisers in our Student Sections and by the response of the students themselves. The range and depth of their technical competence, their ability to express themselves, to deliver technical papers in an interesting and convincing manner, all augur well for the future of our Society. I have also noted the valuable aid rendered by the Woman's Auxiliary to so many of our Sections as well as to the Society on the national level. I hope there will soon be an auxiliary for every Section; their aid to students is important, but an even greater service is rendered by their cordiality and hospitality to the wives of our younger members, particularly young engineers who are establishing themselves in a new job and are seeking integration in a new community. To all of these loyal people, and to the officers and Staff, I offer my deepest gratitude.

In spite of 55,000 miles of travel during the last year, I have met less than 20% of the members of our Society. If I have not met you, I hope that I may do so at some early meeting or conference so that I may thank you personally for your support

during my administration.

SINCERELY,

WM. F. Tyau

PRESIDENT

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### MEETING HIGHLIGHTS

During fiscal 1956-57,
ASME continued its increasingly extensive
and valuable program of
collecting and distributing reports of
important engineering developments.
Topics covered by ASME meetings,
periodicals and other publications included
not only the traditional and fundamentally
important fields of engineering,
but such recent ones as nuclear energy,
high speed aircraft, new metals, solar energy,
automation and gas turbines.

More people, both members and non-members, attended ASME meetings and conferences during the past year than ever before in the history of the Society. (See table, page 9.) These meetings are a cornerstone of the Society's policy of helping to disseminate important technical information to the places where it can be efficiently used. In this way, ASME contributes to the sum of engineering progress.

Of the more than 2000 meetings held during fiscal 1956–57, twenty were national meetings. Four of these were General Meetings of the Society covering many different technical interests; sixteen were Division Conferences dealing with a particular professional field. Over 1300 were sponsored by Sections at locations throughout the country while an additional 700 were Student Section meetings held at universities and colleges.

Some meetings highlights of the year were:

1957 SEMI-ANNUAL MEETING AT SAN FRAN-CISCO, with more technical sessions and a greater attendance than any previous Semi-Annual Meeting. SECOND DESIGN ENGINEERING CONFER-ENCE which, with an attendance of 1700, registered a 50% increase over the first such conference held a year ago.

FIRST RAILROAD DIVISION CONFERENCE at Chicago, at which reviews of such items as modern test equipment and maintenance procedures, and new fuels and construction materials contributed to the advancement of the industry.

WOOD INDUSTRIES CONFERENCE, the first held since 1948, which drew 150 persons interested in application of modern engineering techniques to the lumber and wood processing fields.

### OF THE YEAR



CONFERENCE ON FATIGUE OF METALS, represented during the 1956 Annual Meeting. A unique program at which 80 technical papers originally delivered in London, England, two months before, were summarized by "reporters" and discussed by a capacity audience.

1957 ANNUAL MEETING, the largest and most comprehensive set of technical sessions ever sponsored by the Society, plans for which were completed during the year.

At both the Semi-Annual and Fall Meetings, special arrangements were made for high school teachers and guidance counselors to take part in discussions of opportunities for youth in the profession. These sessions aroused great interest and

evoked an enthusiastic and continuing response.

During the 1957 Nuclear Congress, arrangements were made for 1500 high school students to attend a special lecture program outlining developments and opportunities in the nuclear field.

In part, the success and effectiveness of the past year's meetings and conferences may be attributed to the fact that an increased proportion of technical papers (575 out of 725 or 79%) were available in advance of presentation. This increase enabled most authors to reduce time required for formal delivery of their papers, thereby increasing time available for creative discussion.

An additional 178 papers were printed by ASME for the Nuclear Engineering and Science Conference, and Hot Laboratories and Equipment Conference—both parts of the 1957 Nuclear Congress.

### **MEETINGS AND EXHIBITS**

#### JOINT MEETINGS

In addition to events sponsored entirely by the Society, ASME participated in several inter-society meetings. ASME, in fact, assumed administrative responsibility for the 1957 Nuclear Congress in Philadelphia, sponsored by Engineers Joint Council. This meeting drew nearly 4000 registrants at technical sessions, with additional thousands at the concurrent Atomic Exposition. Twenty-three other scientific and engineering groups participated in this Congress, which was a landmark in the development of inter-society cooperation and a major contribution to the rapidly developing field of atomic energy.





A trend toward increased joint-sponsorship of Division Conferences, with technical societies whose interests are related, was noticeable during the past year. Co-sponsors of conferences during the year were the American Society of Lubrication Engineers, the Society for the Advancement of Management, the American Institute of Mining, Metallurgical and Petroleum Engineers, the American Institute of Chemical Engineers, American Institute of Electrical Engineers, the Society of Automotive Engineers, and ASME's affiliate, the American Rocket Society. In addition, ASME participated in national meetings of the Engineering Institute of Canada, American Welding Society, and the Instrument Society of America. These joint conferences meant that ASME members and others had access to stronger, more comprehensive technical programs than would otherwise have been possible, with a smaller expenditure of time and funds.

#### **EXHIBITS**

Adding to the educational value of some Division Conferences were exhibits or expositions at which industrial concerns displayed items of interest to specialists in the field. General Meetings and Division Conferences which were held concurrently with expositions include the 1956 Annual Meeting (National Power Show), Design Engineering Conference (Design Engineering Show), Gas Turbine Conference and Exhibit, Oil & Gas Power Conference and Exhibit and the Heat Transfer Conference and Exhibit.

#### **MEETINGS POLICY**

The growing number and the increasing complexity of engineering specialties is having a profound effect on ASME meetings. Procedures of the past, under which major emphasis was placed on "general" or profession-wide meetings, are being modified.

The Board on Technology and its Committees, recognizing limitations inherent in meetings at which an ever-growing number of different subjects are discussed at simultaneous sessions, has evolved a new policy. It has taken steps to place less emphasis on the "general" meetings and to channel more of the Society's resources into Professional Division Conferences, at which concentrated programs dealing with a single subject are offered. Accordingly, the only General Society Meetings scheduled for the coming year are the Annual and Semi-Annual.

New policies to guide ASME participation in exhibits and expositions, and to cover the selection of meeting locations and dates, were approved by Council during the year.

These modifications in policy are typical of efforts made by the Society and its Committees to assure a continuing and adequate program of the kind of meetings that do so much to facilitate the exchange of information. These events also serve to provide an opportunity for members to make and renew acquaintances with others of similar interests, to focus national attention on engineering achievements, to provide an appropriate setting for presentation of honors and awards and to foster an attitude of professional pride.

#### **LECTURESHIPS**

Lectureships are a method adopted by the Society to carry the latest thoughts of leaders of the profession to members everywhere. During 1957, eight lecturers were sponsored by ASME in their travels to Section meetings, colleges, universities and other centers of interest. The 45 separate lectures were heard by thousands of persons—engineers, scientists, educators and students.

Lecturers, and their topics, for the year, were Nevin L. Bean and Weldon H. Brandt speaking on "Automation in Russia"; J. K. Dillard, Orville E. Homeister and T. O. Jones speaking on aspects of nuclear development; Jacob P. Den Hartog, "Vibration"; Philip W. Swain, "Imagination, the Key to Engineering Achievement"; and Crosby Field, "The Crowning Contribution of Our Profession."

#### PROFESSIONAL INTERESTS

The Society's Professional Divisions have been organized, over the years, to provide a framework within which members can meet and participate in programs with their colleagues having similar interests. A table of Professional Divisions appears below.

Possibly the fastest growing Division during 1957 was the Society's youngest, Nuclear Engineering. This Division sponsored technical sessions at three national meetings, including the 1956 Annual Meeting, where attendance far exceeded seating capacity. The Division also reports that plans to initiate a continuing service by publishing Nuclear Reactor Data Sheets with periodic revisions were advanced during the year, with Volume I expected to be issued early in 1958.

A new development during the year was establishment of the Maintenance and Plant Engineering Professional Group. Since its formation in March, the group has arranged to sponsor a set of papers at the 1957 Annual Meeting, and has begun plans for a two-day conference in Pittsburgh in April, 1958.

PROFES	SIONAL DIVISIONS	AND DATE OF FOUNDING	
APPLIED MECHANICS	1927	NUCLEAR ENGINEERING	195
AVIATION	1920	OIL AND GAS POWER	192
FUELS	1920	PETROLEUM	193
BAS TURBINE POWER	3-1	POWER	192
LEAT TRANSFER	1938	FROCESS INDUSTRIES	
		PRODUCTION ENGINEERING	192
NSTRUMENTS AND REGULATORS		RAILROAD	192
		RUBBER & PLASTICS	
	1945	SAFETY	193
ANAGEMENT	1920	TEXTILE ENGINEERING	192
		WOOD INDUSTRIES	192
IFTALS ENGINEERING	1927 -		

MEETING OR CONFERENCE	SESSIONS	PAPERS	PREPRINTS	ATTENDANCE
ASME ASIE LUBRICATION CONFERENCE October 8-10, 1955, Arkintic City, N. J.	6	12	11	407
ASME-AIME JOINT SOLID FUELS CONFERENCE October 24-25, 1956, Washington, D. C.	4	7	7	234
ASME ANNUAL MEETING Movember 25:30, 1956, New York, N. Y.	101	249	222	6,833
NUCLEAR ENGINEERING & SCIENCE CONFERENCE March 10-16, 1957, Philadelphia, Pa.	33	147	120	3,857
GAS TURBINE POWER CONFERENCE & EXHIBIT March 18-21, 1937, Detroit, Mich.	6	18	13	651
ENGINEERING MANAGEMENT COMPERENCE March 27 28, 1957, Pittsburgh, Pu.	4	10	6	253
INSTRUMENTS AND REGULATORS COMPERENCE April 7-10, 1957, Chiongo, III.	5	25	16	160
EPRING MEETING April 7-10, 1937, Birmingham, Ala.	12	21	15	268
TEXTILE ENGINEERING CONFERENCE April 12, 1957, Lowell, Mass.	2	5	-	78
tarlroad Conference April 25-26, 1957, Chicago, M.	4	12	9	260
AANAGEMENT-SAM CONFERENCE April 25-26, 1957, New York, N. Y.	8	17	-	1,075
WOOD INDUSTRIES CONFERENCE lay 16-17, 1957, Winston-Salem, N. C.	3	10	10	163
HL & GAS POWER CONFERENCE AND EXHIBIT	8	10	10	437
ESIGN ENGINEERING CONFERENCE toy 20-23, 1957, New York, N. Y.	4	12	12	1,729
EMI-ANNUAL MEETING une 9-13, 1957, San Francisco, Calif.	50	127	101	2,105
PPLIED MECHANICS CONFERENCE	11	44	44	185
SME AICHE HEAT TRANSFER CONFERENCE	11	35	35	436
LL MEETING ptember 22-25, 1957, Martford, Conn.	23	43	38	640
TROLEUM MECHANICAL ENGINEERING CONFERENCE	20	55	38	800
	315	859	707	20,571

Meetings and conferences listed in this table include those sponsored entirely by ASME and others in which the Society took a major part during the year. In addition, Sections of the Society conducted many other meetings throughout the country.

### RESEARCH



#### RESEARCH PROGRAM

ASME administered research projects in some twenty fields of interest during 1957. These investigations, carried on at a number of universities and other laboratories, are intended to provide the foundation on which future technical improvements can be built.

The Society, as a non-profit organization with interests in, and a broad view of, a wide range of industrial operations, is in a unique position to advance investigations of interest to a wide range of industry.

In order to be considered for ASME sponsorship, a research project must be "non-proprietary," that is, not restricted in value to a single industrial concern, but of potential benefit to many. In practice, most projects are aimed at bridging the gap between the discovery of scientific principles and their application by engineers.

Financial support comes from industry, trade associations and the Engineering Foundation. The Foundation, over the years, has devoted about 25% of its research dollars to the Society's projects.

Guidance and administration of the research program is the responsibility of a number of individual committees, composed of more than 600 experts in various fields who donate their time and skills.

Research projects administered by ASME are located at a number of installations throughout the country. On facing page, pictures at left and right show equipment used in investigating high-temperature steam generation. At center is part of a project on thermodynamic properties of steam.

#### RESEARCH PROJECTS

Specific projects include investigations of the thermodynamic properties of steam, carried on at Brown University, California Institute of Technology and Georgia Institute of Technology. These studies represent the United States contribution to a vast international project for which ASME provides the secretariat. This work is aimed at securing information for new skeleton steam tables extending to 15,000 pounds per square inch and 1500 degrees Fahrenheit. More than 15 nations are taking part. Such data will be needed for the efficient design and operation of tomorrow's supercritical power stations.

At various laboratories during the year, investigations were carried out on high-temperature steam generation and to determine the effects of extreme temperatures, high and low, on the behavior and properties of metals. The latter work is under the joint supervision of ASME and the American Society for Testing Materials.

A newly formed committee is investigating avenues of research in a field now commanding growing interest, the flow of bulk materials. More reliable information on the behavior of moving particles, powders, grains and even chunks, may lead to improved shipment of bulk materials by pipeline and more efficient design of conveyors and bins.

Other current ASME research projects, in the order of their establishment, cover: Lubrication,

Fluid Meters, Metal Processing, Mechanical Springs, Elevators, Furnace Performance Factors, Boiler Feedwater Studies, Condenser Tubes, High Temperature Steam Generation, Plastic Flow of Metals, Automatic Regulation Theory, Corrosion and Deposits From Combustion Gases, Mechanical Pressure Elements, Heat Conduction Charts, Engineering Administration, Prevention of Fracture in Metals, and Random Vibration.

In addition to work under supervision of the Research Executive Committee, a number of other units of ASME, including committees of the various Divisions, help to gather and index new information in various fields.

#### PLANNING FOR THE FUTURE

Concerned not only with the past and present, ASME has taken steps to explore and plan for tomorrow's needs. Typical of these steps was the appointment of the Technical Development Committee, now completing its first full year. The Committee is devoted to a continuous surveillance of the growth of scientific and engineering knowledge, anticipation of the need for technical society activity in new fields and recommendation of new group activity within ASME. Specific areas now under study are: storage of energy, conservation of water resources, a new look at our concept of energy and its use by man, air sanitation, direct generation of electricity, and improved food technology and production.

### CODES AND STANDARDS

To many people, on this continent and overseas, the name "ASME" means "Codes and Standards." Altogether, 231 of these indispensable guide-posts to industry are currently published by the Society.

During the past year, additional portions of the ASME Boiler and Pressure Vessel Code were adopted by law-making bodies in several states. This code is now a legal force in 33 states, 11 provinces of Canada and many municipalities. The ASME Elevator Safety Code is now used in a total of nearly 400 jurisdictions, including eight states.

#### MEETING THE CHALLENGE

Under the unique American system of producing codes and standards through voluntary cooperation of interested groups (in most countries they are produced by government agencies), ASME has many responsibilities.

New projects accepted for sponsorship by the Society this year included development of standards to cover mechanical shock and vibration, cooling towers and aerial passenger tramways (ski-lifts).



"A Glossary of Nuclear Terms," first dictionary of its kind, designed to enable engineers, physicists, medical personnel and other specialists to speak a common language in the growing atomic field, was published this year as an American Standard. This volume, together with a series of interpretations of the Boiler Code, issued to adapt the code for use in construction of nuclear power stations, plus formation of a committee to write safety standards for nuclear reactors, are examples of the way in which the Society meets demands imposed by technological change.

An outstanding achievement of the year was completion, under procedures of the American Standards Association, of the key portions of a new drafting standard, expected to have a major impact on industrial practices in this nation and abroad.

To carry on the work of producing codes and standards, ASME this year sponsored or co-sponsored 378 committees made up of over 3,000 Society members and others, whose expert and diverse backgrounds assure a comprehensive viewpoint.

#### A CONTINUING PROGRAM

Codes and standards work does not end with publication. There is a need for constant review, clarification and interpretation, activities which place increasing demands on the responsible committees. For example, the Society, as sponsor of the Boiler and Pressure Vessel Code, has been faced with a battery of new problems arising from the rapid growth of the nuclear power industry. For the time being, no new code has been issued to cover design and construction of vessels for nuclear plants. Instead, individual problems are being considered as they arise and rulings issued in the form of interpretative cases under the existing codes. Requests for interpretation of this code, alone, increased 30% this year to a total of 650 queries.

#### INTERNATIONAL CODES AND STANDARDS

Codes and standards activities across national borders are increasing year by year. Efforts to arrive at a common standard with other nations are typified by ASME participation, through the U. S. National Committee, in the work of the International Electrotechnical Commission (IEC). IEC committees are writing rules for acceptance tests and specifications for purchase of hydraulic turbines, steam turbines and internal combustion engines. ASME members serve on the Secretariat of these three committees. At a September meeting in Zurich, Switzerland, in which 45 delegates from 13 countries participated, an International Hydraulic Turbine Test Code was completed.

ASME representatives were among the 24 Americans who attended a meeting in Moscow, Russia, of the International Electrotechnical Commission. Five hundred delegates from 27 countries were present.

The Society is also actively participating, through the American Standards Association, in the work of the International Organization for Standardization (ISO). One of the major ISO events of the year was a meeting in Madrid, Spain, of a committee dealing with codes for stationary power boilers at which 130 delegates representing 19 nations were present. The two-week session, the largest plenary meeting ever held by any ISO committee, resulted in proposals of extensive technical changes in the requirements for the design, materials and construction of power boilers.

Another ISO meeting, in Lisbon, resulted in inclusion of inch standards for screw threads in international documents.

Arrangements were completed for an ASME-sponsored committee to represent the United States in October, 1957, at a meeting with representatives of British and Canadian standards-making organizations to work toward a standardized drafting practice for the three countries.





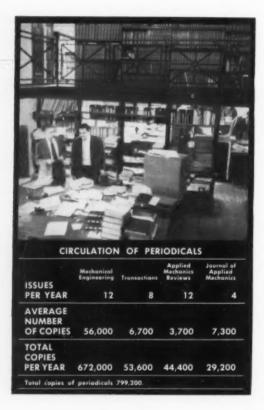












### **PUBLICATIONS**

Production, during the past year, of 869 separate pieces of literature—periodicals, books, technical papers and reference volumes—made ASME a major factor in the technical publishing world.

Publications are a major "product" of the Society. Available to individuals, libraries, centers of learning and industrial concerns throughout the world, they provide a comprehensive, permanent, easily accessible source of vital technical information. Their value is enhanced by their listing in Engineering Index, a service which provides a cross-referenced guide to current technical literature.

Periodicals included twelve issues each of Mechanical Engineering and Applied Mechanics Reviews, eight issues of Transactions and four of the Journal of Applied Mechanics. (See table, at left.) In addition, a bi-monthly newsletter, Smog News, summarizes nationwide activity in the field of air pollution.

During 1956–57, Mechanical Engineering, the Society's monthly journal, was improved in format and editorial style and an art editor was added to the staff. Work was begun by Editor Emeritus





George A. Stetson on a history of ASME. A volume of engineering tables of the Metals Engineering Handbook series, published by ASME, was voted "One of the 100 Best Technical Books for 1957."

Some thirty-eight "special" publications were issued by the Society during the year, covering such diverse topics as nuclear reactors, sawmills, machine tools, pipe, welding and various reference tables. (See list, this page.) Seventy-five thousand copies of such "special" publications were sold in fiscal 1957.

During the year, the Society continued to undertake the production and distribution of technical volumes for which a genuine need exists, but which are not available from commercial sources. These include proceedings of conferences and such basic books as the Metals Engineering Handbook series which provides authoritative information on design, processes and metals properties as well as engineering tables. Through such publications, ASME fills a large and important mission and contributes greatly to the advancement of the profession and to industrial and economic progress.

CAVITATION, Resistance of Various Materials to ...

COMBUSTION, Proceedings of the 1955 International Conference

THERMODYNAMIC, Properties of Compressed Water

CONSULTING ENGINEERS, Directory of ...

CONSULTING PRACTICE. Manual of ... for Mechanical Engineers

DESIGN ENGINEERING, Proceedings of 2nd (1957) Conference

HOT LABORATORY, Operation and Maintenance

INDEX, 77 Year Index to ASME Technical Papers (1880-1957)

#### NUCLEAR

Advances in Nuclear Engineering — 2 Volumes Problems in Nuclear Engineering Reactor Operational Problems

#### OIL AND GAS POWER

1956 Proceedings of Oil and Gas Power Division Conference 1956 Report on Oil and Gas Engine Power Costs 1957 Proceedings of Oil and Gas Power Division Conference

SAWMILLS, Handbook for Small Sawmill Operators

THEORETICAL AND APPLIED MECHANICS, Proceedings of the Eighth (1952) International Congress on . . . (2 volumes)

WORLD POWER CONFERENCE, Statistical Year-Book No. 8

#### BIOGRAPHY

Professional Amateur (A Biography of Charles F. Kettering)

#### BOILER AND PRESSURE VESSEL CODES

Boiler codes which outline safe rules for construction of boilers and pressure vessels, occupy a distinctive position in American life in that they frequently become the basis for the laws of various states and cities.

Low-Pressure Heating Boilers (Section IV) 1956 Edition with 1957 Addenda

Material Specifications (Section II) 1936 Edition with 1956-57

Power Boilers (Section I) 1956 Edition with 1956-57 Addenda Unfired Pressure Vessels (Section VIII) 1956 Edition with 1956-57

Welding Qualifications (Section IX) 1956 Edition with 1956-57
Addenda

Case Interpretations and Addenda to the ASME Boiler and Pressure Vessel Code

Standards, often produced under procedures of the American Standards Association, provide universally accepted dimen-sions, units of measurement and procedures for use in industry.

Carbide Blanks and Cutting Tools

#### **Drafting Standards Manual**

(The remaining eleven sections of this comprehensive manual in various stages of preparation.)

1 Size and Format
2 Line Conventions, Lettering and Sectioning

3 Projections 4 Pictorial Drawings

Dimensioning and Notes

6 Screw Threads

Ferrous Yulves, Face-to-Face and End-to-End Dimensions Glassary of Terms in Nuclear Science and Technology

Graphical Symbols for Railway Use

Letter Symbols for Railway Use

Life Tests for Single Point Tools of Sintered Carbide

Abrasive Discs and Plate Mounted Wheels, Machine Mounting

Ring-Joint Gaskets and Grooves for Steel Pipe Flanges Stainless Steel Pipe

#### POWER TEST CODES

Power Test Cades outline pracedures far establishis safety, reliability and performance of mechanical equi. They are often used as the basis of contractual agre between supplier and buyer.

Determining Dust Concentration in a Gas Stream

**Ejectors** and Boosters

**Evaporating Apparatus** 

Internal Combustion Engines



### COOPERATION...

As one of the nation's oldest and largest engineering societies, ASME bears a special responsibility to devote a portion of its energies to the betterment, not merely of *mechanical* engineering, but of the entire profession. This year, as in the past, ASME earned its reputation as a leader in programs of cooperation with other societies and agencies, both here and abroad.

#### EJC

As a charter member of Engineers Joint Council, ASME has played a leading role in forwarding the EJC objective of advancing the engineering profession.

Here are some of the outstanding activities and accomplishments of EJC during the past twelve months.

- Initiation, in cooperation with Engineers' Council for Professional Development, of a comprehensive survey of the engineering profession which would define the limits of the profession and present a clear picture of the engineer's role in modern society. ASME provided a share of the initial funds.
- Publication of one of the most complete surveys on income of engineers ever produced.
- Completion of a second report on National Water Policy, which has proved of value to legislators and Federal officials in providing background information for development of future water-harnessing and water-conservation programs.
- Development of a report on Principles of Consulting Practice for All Branches of Engineering (based on the ASME Manual on Consulting Practice).

- Sponsorship of a General Assembly in New York at which 400 key leaders of the engineering profession dealt with such problems as the Engineer in Government Service, Economic Status of the Engineer, and the Impact of the Engineer on International Relations.
- Development of a tentative policy on air pollution as related to the public welfare.
- Publication, for a full year, of Engineer, a newsletter designed to keep leaders of the profession informed on joint activities, and on legislative and other pertinent matters.
- ◆Continuation of specific projects, through its Engineering Manpower Commission, aimed at maintaining the supply and the proper utilization of engineers, counseling engineers on effective means of continuing professional development while completing military service requirements, assisting in the development and implementation of regulations for most effective training and utilization of military-age engineers, and compiling information on engineering faculties, engineering educational facilities and the nation's need for engineering graduates.

#### ECPD

Another most important joint organization to which ASME has helped to supply leadership and support is the Engineers' Council for Professional Development, which completed its 25th year in 1957. In addition to its well-known work in accrediting engineering curricula, ECPD carries on an extensive program of supplying information about engineering to high school students, teachers, guidance counselors and other interested persons.

At the 1956 ASME Annual Meeting, a special panel of leading educators discussed engineering education and the ECPD accrediting system. In line with this discussion, ASME's Education Committee has undertaken to encourage more active participation by representatives of industry in ECPD's accrediting program.

Throughout the year, other panel sessions on ECPD's program have been presented at ASME meetings.

The Society has also actively helped to support the Joint General Assembly of EJC and ECPD. It also provided staff support for the work of the special committee of ECPD to the Conference on Engineering Training held in Paris in September, 1957, by the Conference of Representatives from the Engineering Societies of Western Europe and the United States of America (EUSEC).

Four thousand copies of ECPD's Professional Guide for Junior Engineers were presented by the Old Guard (dues-exempt members of ASME) to Student Members at the time of graduation.

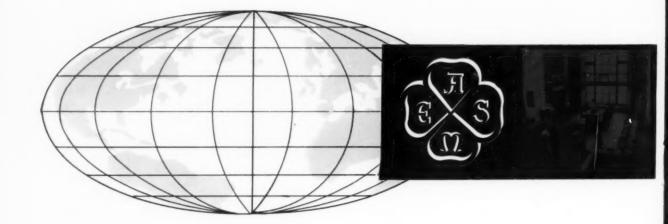
#### WITHIN ASME

Like other forward-looking groups in the engineering field, ASME is concerned with problems facing the profession. Much activity during the year was devoted to developing programs to further both the professional development of individual engineers before, during and after graduation from college, and the improvement of the profession as a whole

Supplementing work within ECPD were the Society's various supporting programs including that of the Old Guard Committee. These senior members, now exempt from payment of dues, have aroused the interest of engineering students across the nation in a series of competitions at which students present original technical papers on various engineering subjects. Travel funds and prizes are provided by the Old Guard. At the Semi-Annual Meeting, the twelve winners of Regional contests presented their papers in competition for the national Old Guard Prize. Winner of the 1957 prize was George M. Reynolds of Northwestern University.

Education Committee activities included sponsoring discussions of various aspects of engineering education, both during and after college, and completion of plans for a seminar at Detroit in November, 1957, to enable representatives of industry and education to discuss accreditation of engineering curricula.

A special ASME committee, Engineers Registration, devoted itself to encouraging an appreciation, among young engineers, of the importance of professional registration, assisting other groups whose objectives are similar, and otherwise implementing the ASME policy on registration.



### **WORLD-WIDE**

#### INTERNATIONAL

The need for cooperation among the engineers of various nations in a shrinking and mutually interdependent world grows more apparent every day. For years, ASME has encouraged international liaison and coordination. In addition to work described under various headings in this report, some typical examples of international activities are described below.

Close cooperation with the Engineering Institute of Canada included reciprocal participation in three technical conferences and joint sponsorship of the Second ASME-EIC Educational Conference to consider "The Training of the Engineer After Graduation." Plans were completed for the third such educational conference in 1958, to consider "The Place of Industry in Education."

Two ASME delegates were among the U. S. delegates at the World Power Conference held in Belgrade, Yugoslavia, in June, 1957, to discuss the role

of power in raising living standards in underdeveloped countries. Forty nations were represented. Society members will also play an active part in the 1958 World Power Conference in Montreal and the subsequent Sixth International Congress on Large Dams.

As in the past, the Society continued its policy of making publications and other sources available to all who wish them on a non-discriminatory basis, regardless of nationality. A substantial number of ASME publications were distributed to purchasers abroad and many ASME-sponsored papers were reprinted or abstracted in technical journals of other countries.

ASME is also represented on the International Association for Exchange of Students for Technical Experience (IAESTE), in which 21 nations take part. This group continued, during the year, its program of arranging for students to spend their summer vacations gaining valuable experience

### INTERESTS

through work at industrial installations of other nations.

ASME representatives also participate in the deliberations of other joint groups, including the Engineering Societies Monographs Committee, American Association for the Advancement of Science, Bureau of Engineering Registration, Engineering Foundation, the U. S. National Committee on Theoretical and Applied Mechanics, and, through the U. S. National Committee, in the World Power Conference, all of which carry on constructive programs. ASME activities are closely coordinated with those of its affiliate, the American Rocket Society.

#### LIBRARY

ASME, together with the other Founder Societies, helps to support the Engineering Societies Library, largest non-government collection of technical volumes in the world. During the year, the Library, at the Society Headquarters in New York, served 43,000 persons, including many ASME members who receive borrowing privileges as part of their membership. More than half of these users, from all parts of the world, made their requests by telephone or mail. Mail services include loaning books, providing photocopies and arranging for translations.

The Library works with a selected collection of nearly 175,000 volumes, 20,000 maps, 5000 translations, 1500 current periodicals and many thousand bibliographies and indexes.

As one of the "Founder Societies," ASME owns an interest in, and is represented on, the governing board of United Engineering Trustees, Inc., the corporation which owns and operates the present Engineering Societies Building and which is coordinating plans for the new United Engineering Center.

### RECOGNITION

#### **PROFESSIONAL PRACTICE**

Under a subcommittee of the ASME Committee on Professional Practice of Consulting Engineering, two publications, one a Manual of Consulting Practice for Mechanical Engineers, the other a Directory of Consulting Engineers, were completed and have already been widely distributed. The committee also provided for ASME representation on a committee considering the practice of engineering through corporations, sponsored discussions on the practice of consulting engineering, answered queries concerning ethical practices and dealt with other problems.

#### **PUBLIC AFFAIRS**

Civic Affairs Committees, at the National, Regional and Sectional levels, worked throughout the year to encourage the effective participation by engineers in those areas of public life where their experience and training are of optimum value. Typical projects of these committees were distribution of a questionnaire to determine the extent of members' civic activities, rendering assistance to high school guidance counselors, encouragement of participa-

tion in high school "science fairs," providing speakers on engineering topics to non-engineering groups and helping to organize and operate "engineering clubs" on the high school level.

The Roy V. Wright Lecture, an annual feature dedicated to encouraging engineers to take part in public life, was delivered during the Semi-Annual Meeting by Dr. George L. Sullivan, Dean Emeritus of the College of Engineering of the University of Santa Clara.

As part of its public relations program, aimed at fostering an understanding and appreciation of the role of engineering in modern society, ASME has consistently helped to provide information about the profession to students and other groups. The ASME motion picture, "To Enrich Mankind," was shown during 1956–57 to audiences totalling over 2,500,000, thereby bringing the total since the film was produced in 1955 to nearly 8,000,000 persons.

Other public relations activities were aimed at enhancing the value of meetings, publication and other Society efforts by calling them to the attention of a wider public, and at securing proper recognition for outstanding achievements in the field of engineering.

### HALL OF FAME



George Westinghouse, engineer, inventor and a Past-President of ASME, has been chosen for honor by the electors of the Hall of Fame for Great Americans. Here, Edmondo Quatrocchi, sculptor, is preparing a bust of Mr. Westinghouse to be unveiled at ceremonies in December, 1957.



### **HONORS AND AWARDS**







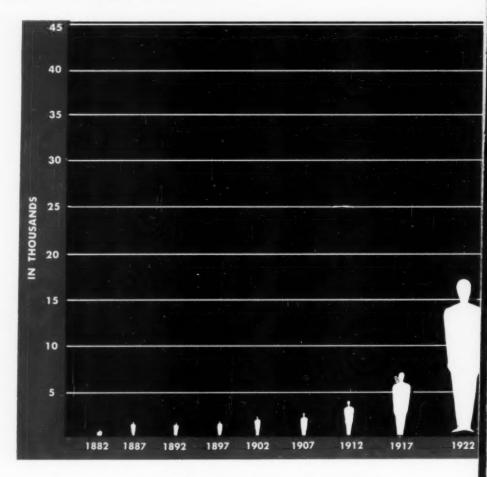
An important Society activity, which helps to encourage and recognize outstanding contributions to the profession, is the conferral of honors and awards. During 1956–57 the Council approved presentation of twelve major awards and established a new one, the Timoshenko Medal. First recipient was the man in whose honor it is presented, Stephen P. Timoshenko, Professor Emeritus of Applied Mechanics at Stanford University.

Honorary Membership, the Society's oldest and highest distinction, was conferred upon E. G. Bailey, founder of the Bailey Meter Company and a past-president of ASME.

Other awards announced were: ASME Medal—Llewellyn M. K. Boelter; ASME George Westinghouse Gold Medal—Alfred Iddles; Holley Medal—Charles Stark Draper; Worcester Reed Warner Medal—William Prager; Blackall Machine Tool and Gage Award—B. T. Chao and Kenneth J. Trigger; Arthur L. Williston Award—Walter F. Logeman; Richards Memorial Award—Wayne C. Edmister; Pi Tau Sigma Gold Medal Award—Patrick H. McDonald, Jr.; Prime Movers Committee Award—H. Hegetschweiler and Robert L. Bartlett; Undergraduate Student Award—William A. Olsen, Jr.; Old Guard Prize—George M. Reynolds.

In addition to the above, ASME participates with other societies in the administration of eleven joint awards.

### **MEMBERSHIP**



#### MEMBERSHIP

Membership of the Society reached a new all-time high during the year with a total of 52,012 members, including students. A table showing the growth of membership in various grades appears on page 24. Most Sections and all Regions increased membership during the year.

#### **ORGANIZATION**

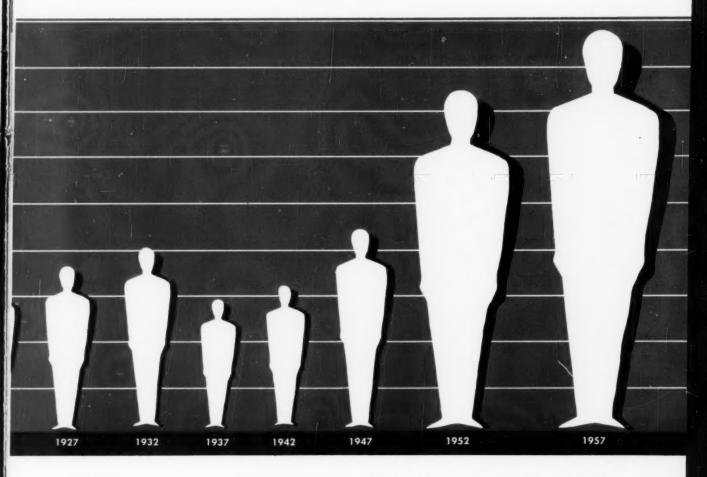
ASME members who take an active part in Society work are aware of the need for constant review, adaptation and improvement of the Society's structure and operations.

Major steps in this field during 1957 included initiation of a project to codify council policies and formation of a subcommittee to review the constitution, by-laws and rules. A new policy which permits automatic promotion of a Student Member to Asso-

ciate Member status upon completion of an accredited curriculum has been implemented.

A report prepared late in 1957 by the Organization Committee covering a year of study, indicates that, although the Society is properly organized to meet its present obligations, further study should be given to problems that will arise in the future as the Society grows in size and as technological changes take place. The report also urged consideration of relationships with other engineering groups and of improved coordination of ASME activities at National, Regional and Sectional levels, particularly in matters of "technical interests."

To improve liaison between ASME and its affiliate, the American Rocket Society, arrangements were completed for each organization to be represented by a non-voting member on the appropriate policy-making board of the other and an agreement was reached on reciprocal fees.



#### RAC-RDC

A vital part of the Society's operational procedure was the annual series of eight Regional Administrative Committee Meetings and the Regional Delegates Conference. Through these sessions, under the by-laws, every member is assured of an opportunity to present his views to the appropriate committees of the Society and the Council.

Recommendations of the Regional Advisory Committees, submitted to the 1957 Regional Delegates Conference, resulted in a number of items being brought to the attention of the Council. These included a proposed group disability plan for ASME members, suggested changes in the operating years of the Society, participation in National Engineers Week, changes in the boundaries of subsections, formation of regional nominating committees to aid in the nomination of Society officers and policy on

registration of corporations to practice engineering.

#### A WORD ABOUT COMMITTEES

ASME is a product of its Committees. The enormous scope of interests and many active projects of the Society can be dealt with only through decentralization and delegation of work to small groups of individuals. The work of the Council, Regions, Sections, Boards, Divisions, Student Sections, and Auxiliary is carried on by many hundreds of committees, whose members give freely of their time for the common good.

Although it is not possible in the confines of this report to recognize the specific contributions of each committee and its members, it is no exaggeration to say that it is their work, their generosity and their guidance that make The American Society of Mechanical Engineers what it is, and that made possible this year of substantial progress.

### MEMBERSHIP IN ASME SECTIONS-SEPTEMBER 30, 1957

AKRON	334	NEBRASKA	
ANTHRACITE - LEHIGH VALLEY	430	NEW HAVEN	20
ARIZONA	200	NEW LONDON	. 11
ATLANTA	285	NEW MEXICO	29
BALTIMORE	680	NEW ORLEANS	39
BIRMINGHAM	449	NORTH TEXAS	58
BOSTON	1,448	NORTHERN NEW ENGLAND	24
BUFFALO	366	NORTHWEST FLORIDA	11
CANTON-ALLIANCE-MASSILLON	212	OLEAN	10
CENTRAL ILLINOIS	275	ONTARIO	
CENTRAL INDIANA	453	OREGON	
CENTRAL IOWA	170	PHILADELPHIA	2,11
CENTRAL KANSAS	110	PIEDMONT - CAROLINA	22:
CENTRAL PENNA.	130	PITTSBURGH	1,18
CENTRAL SAVANNAH RIVER AREA	155	PROVIDENCE	33:
CHATTANOOGA	263	ROCHESTER	32
CHICAGO	2,131	ROCK RIVER VALLEY	189
CINCINNATI	674	ROCKY MOUNTAIN	343
CLEVELAND	792	SABINE	103
COLUMBIA BASIN	124	ST. JOSEPH VILLAGE	184
COLUMBUS	379	ST. LOUIS	536
DAYTON	334	SAN DIEGO	20:
DELAWARE	512	SAN FRANCISCO	1,463
DETROIT	1,276	SAVANNAH	90
EAST TENNESSEE	288	SCHENECTADY	651
EASTERN NORTH CAROLINA	154	SOUTH TEXAS	734
ERIE	207	SOUTHERN CALIFORNIA	2,467
FAIRFIELD COUNTY	463	SOUTHERN TIER	326
FLORIDA	298	SUSQUEHANNA	210
FORT WAYNE	92	SYRACUSE	319
GREENVILLE	103	TOLEDO	226
HARTFORD	573	UTAH	102
HAWAII	98	VIRGINIA	488
INLAND EMPIRE	160	WASHINGTON, D.C.	691
IOWA - ILLINOIS	188	WATERBURY	149
KANSAS CITY	502	WEST VIRGINIA	262
LOUISVILLE	253	WESTERN MASS.	224
METROPOLITAN	5,435	WESTERN WASHINGTON	432
MEXICO	109	WESTMORELAND	183
MIAMI	126	WORCHESTER	239
MID CONTINENT	501	YOUNGSTOWN	130
MID HUDSON	194		
MID JERSEY	797	TOTAL SECTION MEMBERSHIP	41,805
MILWAUKEE	679	OUTSIDE OF SECTIONS	2,317
MINNESOTA	419	TOTAL MEMBERSHIP	44,122

### CHANGES IN MEMBERSHIP -SEPT. 30, 1956, TO SEPT. 30, 1957

	MEMB	ERSHIP	INCREASES		TRANS-	DECREASES			CHANGES			_	
	SEPT. 30 1957	SEPT. 30 1956	FERRED TO	ELECTED	REIN- STATED	FERRED FROM	RE- SIGNED	DROPPED	DIED	IN- CREASES	DE- CREASES	CHAI	
Henorary	72	74	1						3	1	2	-	2
Fellows	421	407	32			1			17	32	18	+	14
Members	15,483	14,944	378	539	159	32	160	162	183	1,076	537	+	539
Affiliates	286	290		17	2		10	8	5	19	23	_	4
Associate Members (25)	5,448	4,357	1,241	193	114	158	73	213	13	1,548	457	+1,	,091
Associate Members (20)	7,555	6,177	3,183	182	55	1,458	134	447	3	3,420	2,042	+1,	,378
Associate Members (10)	14,857	15,387		3,675°	66	3,186	389	686	10	3,741	4,271		530
Total	44,122	41,636	4,835	4,606	396	4,835	766	1,516	234	9,837	7,351	+2	,486

<sup>\*</sup> Includes 2,465 Associate Members Promoted From Student Member

#### **AUXILIARY**

Much useful and important work is carried on for the Society by the Woman's Auxiliary, whose approximately 1700 members are wives, daughters or mothers of ASME members.

In addition to their invaluable aid in sponsoring social events at meetings and conferences, the Auxiliary raises funds for, and administers, three educational funds and a student loan fund.

Early in 1957 three Sylvia Farney Scholarships for undergraduate study were awarded, and the Calvin Rice Scholarship, established to enable students from abroad to enroll for graduate study in the United States, was granted to a resident of Lebanon.

Establishment of Auxiliaries at five new locations during the year brought the total number of women's groups to twenty-six. Sections at which the five new units were established are Canton-Alliance-Massillon (Ohio), Western Massachusetts (Springfield), West Virginia (Charleston), Providence (Rhode Island) and San Francisco (California).

Committees of the Auxiliary are now working on a history of the organization to be completed next year when the Auxiliary celebrates its thirty-fifth anniversary. Revision of the by-laws is scheduled for completion in 1958.

#### **COUNCIL AND VICE PRESIDENTS**

The Council met twice during the fiscal year, at the Annual Meeting in New York, November 24-26, 1956, and in San Francisco, California, June 8-10, 1957. In addition, an informal meeting of Council members was held at the Hartford Fall Meeting. September 24, 1957. Meetings of the Vice Presidents were also held during the Annual and Semi-Annual Meetings and in New Orleans, La., February 23-24, 1957. The Executive Committee of the Council held seven meetings.

#### PRESIDENT'S VISITS

At the close of his administrative year, December 2, 1957, the President will have addressed 41 Sections and 11 Student Sections in addition to his attendance at 4 General Society Meetings in as many different states, 14 Division Meetings and Conferences, the Technology Executives Conference, the Nuclear Engineering Congress, the Conference on Inter-Society Relations, the American Institute of Consulting Engineers Meeting, the West Coast Engineering Management Conference, the National Conference of Heat Transfer, a Special Committee Meeting of NSPE, the ECPD-EJC Joint Assembly, and the ECPD Seminar on Curricula Inspection. He also took part in the AIEE Machine Tool Conference, Pi Tau Sigma Meeting, Vice Presidents Meeting and a dinner initiating fund-raising efforts for the new United Engineering Center.

#### CHANGES IN STAFF PERSONNEL

Chief among staff changes this year was the designation of O. B. Schier, II, as successor to C. E. Davies as Secretary of the Society. Mr. Schier has been a member of the staff since 1946. Following his retirement from ASME, Mr. Davies will devote full time to his duties as Coordinator of the United Engineering Center to be erected in New York City as a headquarters building for many of the nation's leading engineering societies, including ASME.

The appointments of William E. Reaser as Assistant Secretary in charge of Field Service and John D. Wilding as Assistant Secretary in charge of Codes and Standards Service were also announced during the year.

Other changes included designation of George A. Stetson as Editor Emeritus of the Society and the naming of J. J. Jaklitsch, Jr., as Editor of Mechanical Engineering. Donald B. MacDougall was named Meetings and Divisions Manager to head the newly combined Meetings and Divisions Departments. It was announced that J. M. Clark would continue to serve as Divisions Manager in an advisory capacity until his retirement at the end of December, 1957.

Maurice Barrangon was added to the staff as Assistant Editor in the Editorial Dept. A. B. Conlin, Jr., and F. W. Hoernel were named Assistant Meetings and Divisions Managers. Dean Freiday joined the Editorial Dept. and R. J. Brins, the Accounting

Among those who completed long periods on the Society staff were Frances Selig, 50 years, Louise J. Reinschmidt, 40 years, Ivah L. Martin, 35 years and Louisa C. Call, Muriel O. England and Ricky Hoffman, 30 years.

#### **DEATHS**

During the fiscal year the following deaths were recorded: Joseph B. Armitage, Honorary Member, Director 1947– 1950, died May 30, 1957.

1950, died May 30, 1957. Irving E. Moultrop, Honorary Member, Manager 1908–1911, Vice President, 1912–1914, died February 24, 1957. General Charles M. Wesson, Honorary Member, died November 24, 1956. A. E. White, Manager, 1942–1944, died December 18,

1930. Williston, donor of Arthur L. Williston Award, died November 16, 1956.
Harry S. Rogers, President, Brooklyn Polytechnic Institute,

and Past President of ECPD, died June 6, 1957 Lester D. Gardner, Organizer of Institute of Aeronautical

Sciences, died November 23, 1956.
Waldemar Kaempffert, Science and Engineering Editor, New York Times, died November 27, 1956.
H. F. J. Gourley, President of Institution of Civil Engineers of Great Britain, died December 18, 1956.

### **ASME FINANCES**

The financial status of the Society continues strong. For the last fiscal year, receipts of \$2,422,-123.20, the largest ever, exceeded expense by \$114,-784.15, and this amount increases the fund available for future assignment to essential purposes of the Society to \$294,229.29.

Expenditures and receipts followed the general pattern of previous years, with members' dues constituting approximately one fourth of all income, the remainder being largely income from publications.

Of each income dollar, approximately 85 cents were paid for services to members and goods bought by the Society. An additional 5 cents are available for future appropriations. Of the remaining 10 cents, 7 were for general expense, including Council meetings, professional services, such as in-

vestment and legal counsel, and retirement fund.

The remaining 3 cents out of each Society dollar were paid to support joint activities. This included about  $^3/_{10}$  cent to Engineers' Council for Professional Development,  $^6/_{10}$  cent to Engineers Joint Council,  $1^2/_{10}$  cents to the Engineering Societies Library and about 1 cent to all other joint activities.

As in the past, the financial operations of the Society this year were guided by the Finance Committee with the aid of investment counsel. The detailed report of the Finance Committee, from which the information in this section is excerpted, is available to Society members on request. The certified report of the auditors, Price, Waterhouse & Co., is on file in the Society's office and is available for inspection by ASME members.

### **INCOME AND EXPENSE 1956-57**

\$2,422,123.20

#### THIS IS WHERE THE MONEY CAME FROM

Publications\$	1,624,512.03
Membership Dues	666,522.70
Student Dues	51,775.00
Research Reports	17,509.95
Meetings (registration fees)	6,497.00
Miscellaneous (including interest)	55,306.52

#### THIS IS WHERE THE MONEY WENT

Publications	\$1,476,210.73
Sections	150,007.03
Student Sections	119,764.57
Divisions	82,631.44
Meetings	85,231.73
Admissions and Membership Development	51,884.58
*Joint Activities	72,925.03
**Research Administration	41,549.84
Awards	15,600.90
Public Relations	41,794.64
General (Council, Retirement Fund,	
Office Service)	165,215.87
Miscellaneous	4,522.69
Set aside for reserve	114,784.15
	\$2,422,123,20

\*Includes \$29,000 for Engineering Societies Library.
 \*In addition, approximately \$110,000 from custodian funds were expended on research, and an additional

PUBLICATIONS 67%		
DUES 27.5%		
STUDENT DUES 2%		
ALL OTHER 3.5%		

4153	DESCRIPTION OF THE PROPERTY OF
2	ALLOCATED TO SECTIONS, STUDEN SECTIONS AND DIVISIONS 15%
GI	NERAL 7%
FUI	URE RESERVE 5%
No.	

\$600,000 worth of service and goods were contributed by industrial concerns and other agencies toward the ASME research effort.

### BALANCE SHEET

The income of the Society for the year ending September 30, 1957, of \$2,422,123.20 was the largest in the history of the Society. A net income over expense of \$114,784.15 is reported. This amount, plus initiation and transfer fees amounting to \$23,695.00, resulted in an addition to uncommitted funds, for the year, of \$138,479.15.

On September 30, 1957, the Society bweed:	
<ol> <li>Current bills and federal tax withheld from employees.</li> <li>Obligations for printing and distributing the 1958 Mechanical Catalog and other bills which have not been submitted.</li> <li>Unexpended appropriations for future services.</li> <li>Future services to members who have prepaid dues.</li> <li>Subscriptions paid in advance.</li> </ol>	22,500.00 197,265.74 279,368.70 8,443.63 536,590.99
To might these dahle the Society had:	
<ul> <li>(1) Cash in the bank.</li> <li>(2) Note receivable (United Engineering Trustees).</li> <li>(3) Accounts receivable.</li> <li>(4) Inventories of publications and supplies conservatively valued at.</li> <li>(5) Securities at cost.</li> </ul>	16,109.32 215,000.00 214,757.44 189,349.75 1,125,603.77
The difference between the value held by the Society of \$1,830,820.28 and debts of \$536,590.99 is the net worth of the Society on September 30, 1957	81,294,229.29
Against this the Society has set aside a General Reserve against contingencies	51,000,000.00
The Society administers a number of special funds.	
Custodian and Development Funds.  Employees Retirement Fund of	340,944.09 204,235.37 269,796.37 814,975.83
Against these the Society had:	014,775.00
Cash Securities (at cost) Notes Receivable (United Engineering Trustees) Other Notes Receivable	74,074.49 610,251.3 125,000.00 5,650.00
The Engineering Societies Building is owned jointly by the Founder Societies through United Engineering Trustees, Inc. ASME interest and other long-term assets are treated as a fully reserved fund.	
Property Fund of	1 - 638, 489.61
With these assets to support it:	No.
ASME quarter interest in real estate and certain other assets of United Engineering Trustees, Inc. Office furniture and fixtures (depreciated value) Engineering Index, Inc., Title and good will.	498, 448, 40 140, 040: 13 1.00 439-489

WILLIAM F. RYAN
President

JAMES N. LANDIS
President Elect

C. E. DAVIES
Secretary

O. B. SCHIER, II

Deputy Secretary



### COUNCIL OF ASME



#### MEMBERS OF THE COUNCIL 1957

President: William F. Ryan

#### **Past-Presidents**

Lewis K. Sillcox David W. R. Morgan Joseph W. Barker

#### **Vice-Presidents** (Terms expire 1957)

Charles E. Crede Frank W. Miller Albert C. Pasini Bryan T. McMinn

#### **Vice-Presidents** (Terms expire 1958)

William H. Byrne James H. Sams Rolland S. Stover Clifford H. Shumaker

#### **Directors**

### Terms Expire 1957

Frank L. Bradley Elmer O. Bergman Robert B. Lea

#### Terms Expire 1958

Harold C. R. Carlson George A. Hawkins

#### Terms Expire 1959

Louis Polk Joseph Pope Glenn B. Warren

### Terms Expire 1960

Eugene W. Jacobson V. Weaver Smith

Secretary: C. E. Davies Treasurer: Joseph L. Kopf\*

#### THE COUNCIL MEMBERS OF

President: James N. Landis

### Past-Presidents

David W. R. Morgan Joseph W. Barker William F. Ryan

**Vice-Presidents Vice-Presidents** (Terms expire 1959) (Terms expires 1958) Charles E. Crede Arthur W. Weber Ernst W. Allardt Henry S. Aurand William H. Byrne James H. Sams Rolland S. Stover Clifford H. Shumaker

**Terms Expire 1958** Harold C. R. Carlson George A. Hawkins

## Terms Expire 1959 Terms Expire 1960

Louis Polk Joseph Pope Glenn B. Warren Eugene W. Jacobson V. Weaver Smith

### Terms Expire 1961

Elmer O. Bergman Louis N. Rowley, Jr. Ronald B. Smith

Secretary: O. B. Schier, II

#### PROGRESS

By its nature, The American Society of is a dynamic growing organization, in consonance with the expanding importance of engineering in modern civilization where technology and its fruits are of prime concern to leaders of industry and government and to the peoples of the world.

ASME has led a rapidly growing profession.

A sketch of some of the outstanding features of the vast and complex organization known as ASME will be found in this report.

Pictured, too, are some of the achievements of a year of progress.

These achievements are the result of the vision, skill, unselfishness and hard work of the thousands who are

The American Society of Mechanical Engineers.